

Abstract

Disclosed is a process for transfecting genetic material into a mammalian cell to alter endogenous properties of the cell. The process comprises designing a polynucleotide for transfection. Then the polynucleotide is inserted into a mammalian blood vessel. Prior to insertion, subsequent to insertion, or concurrent with insertion the permeability of the vessel is increased using an exterior cuff and immunosuppression is applied thereby the genetic material is delivered to the parenchymal cell.